

REMARKS

Claims in the case are 1-14. Claims 1, 5, 7 and 11 have been amended herein.

Claim 1 has been amended herein to incorporate a portion of the subject matter of Claim 7. Claim 7 has been amended accordingly. Claim 11 has been amended to better correspond to Claim 1 as presently amended. Additional amendments to the claims will be discussed further herein.

Claim 5 stands objected to with regard to the polymer abbreviations "PSO" and "PEEK." These abbreviations have been replaced with their art-recognized equivalent terms: --polysulfone-- and --polyetheretherketone--, respectively. In light of the amendments herein and the preceding remarks, reconsideration and withdrawal of this objection is respectfully requested.

Claims 1-3, 6-10 and 12-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 4,973,102 (**Bien**). This rejection is respectfully traversed with regard to the amendments herein and the following remarks.

Bien discloses a fastening arrangement for plastic to metal parts which includes attaching a plastic panel and metal mounting strip sub-assembly to an automotive body metal sub-structure. The fastening arrangement more particularly includes a metal spacing washer having a tubular sleeve portion formed with an integral frusto-conical spring flange. A sleeve portion of the washer extends through an elongated slot in the mounting strip and an aligned circular opening in the plastic panel, and a blind breakstem rivet is inserted through the washer bore. See the abstract, and Figures 3, 4, 5, 7 and 10 of Bien.

Bien's fastening arrangement is separate and distinct from each of the plastic panel, the metal mounting strip sub-assembly and the automotive body metal sub-structure. In particular, the fastening arrangement of Bien is separate from and is not continuous with the plastic panel. In Figure 4, for example: rivet head (74), rivet

body (72), and integral shank (76) of tolerance compensating ring (80) (see also Figure 10); and spacing washer 40 are each separate from and are not continuous with plastic fender (14).

Applicants' Claim 1 has been amended to describe the joining elements as being thermoplastic rivets that are continuous with the plastic part (b). Bien does not disclose his fastening arrangement as being continuous with the plastic panel / fender thereof.

In light of the amendments herein and the preceding remarks, Applicants' present claims are deemed to be unanticipated by and patentable over Bien. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1, 4-6, 7, 9-11 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,580,122 (**Muehlhausen**). This rejection is respectfully traversed in light of the amendments herein and the following remarks.

Muehlhausen discloses a constructional unit for the region of the scuttle and the cockpit of a passenger car, that includes composite parts each consisting of deep-drawn sheet metal (e.g., steel) and plastic injection molded thereon. See the abstract of Muehlhausen.

It is respectfully submitted that the Office Action of 23 April 2003 has mischaracterized Muehlhausen. On page 4 of the Office Action, it is stated: "The two pieces are joined together by thermoplastic material that flows through the openings in the metal sheets to act as anchoring points for the plastic (column 2, lines 40-44)." Applicants respectfully counter that Muehlhausen provides no such disclosure. Muehlhausen provides no disclosure or illustration as to thermoplastic material flowing through openings in the metal sheets to form or act as anchoring points. The recitation of Muehlhausen at column 2, lines 40-44 is as follows:

By making circular and rectangular bores 3, 3' and set-out tongues 3" at specific locations on the part, anchoring points for the plastic 5, 16 injection-molded thereon as seen in FIGS. 2 and 5 respectively are provided for the positive anchoring of the plastic on the sheet-metal part.

The so called "anchoring points" are neither illustrated nor further described by Muehlhausen. As such, Muehlhausen is not deemed to disclose thermoplastic material flowing through the openings in the metal sheets to form anchoring points for the plastic.

With regard to the comments in the Office Action as to Muehlhausen disclosing thermoplastic material flowing through the openings in the metal sheets to form anchoring points for the plastic, Applicants wish to respectfully point out that Examiner's assumptions do not constitute the disclosure of prior art. *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1956 (CAFC 1993).

Regarding the statements made on page 4 of the Office Action with regard to Muehlhausen's plastic ribs (made with reference to Figure 2 and column 2, lines 45-47), Applicants respectfully submit that Muehlhausen provides no disclosure as to the plastic ribs being formed "where the perforations are located." Muehlhausen provides no written description as to the plastic ribs being formed where the perforations in the sheet metal are located. While Figure 2 illustrates plastic reinforcing ribs (6) of plastic part (5), it can not be reasonably determined from Figure 2 as to where the perforations in the underlying sheet metal are located relative to the ribs. In particular, Muehlhausen provides no disclosure (written, illustrative or otherwise) as to a composite structural article which includes a plastic rib structure having a plurality of intersecting ribs, and in which the joining elements (i.e., thermoplastic rivets that are continuous with the plastic part of the article) are located at the intersections of the ribs. It is further respectfully submitted that Examiner's assumptions do not constitute the disclosure of prior art. *In re Rijckaert*, 28 U.S.P.Q.2d at 1956.

Applicants respectfully submit that Muehlhausen does not disclose injection molded plastic forming a continuous rivet or joining element between the metal body and the plastic portion, as argued on page 4 of the Office Action (with reference to Figure 2 and column 2, lines 40-44). As discussed previously herein, Muehlhausen provides no disclosure or illustration as to thermoplastic material flowing through openings in the metal sheets to form or act as anchoring points for the plastic. In

particular, Muehlhausen provides no disclosure (written, illustrative or otherwise) as to a composite structural article that includes joining elements that are in the form of thermoplastic rivets which are continuous with the plastic part of the composite. It is further respectfully submitted that Examiner's assumptions do not constitute the disclosure of prior art. *In re Rijckaert*, 28 U.S.P.Q.2d at 1956.

On page 4 of the Office Action, it is argued that Muehlhausen discloses configuring the openings and joining elements such that movement between the two pieces is allowed to occur without failure (column 1, lines 35-41). Applicants respectfully submit that Muehlhausen provides no such disclosure, teaching or suggestion. Column 1, lines 35-41 of Muehlhausen reads as follows.

Further, the sheet-metal component of each composite part being configured to transmit without failure operating loads within the composite part and at connection points with the body, and, at least one of bores perforations and set-out tongues being provided at specific locations on the sheet metal components, to serve as positive anchoring points for the injection-molded on plastic,

Muehlhausen broadly and generally discloses configuring his composite part such that it will transmit operating loads therein without failure. However, Muehlhausen provides no further disclosure, teaching or suggestion as to how such a transmission of operating loads would be achieved. In particular, Muehlhausen provides no disclosure, teaching or suggestion as to achieving such a transmission of operating loads by means of configuring the opening and joining elements to allow for movement there between. Regarding the comments on page 4 of the Office Action that Muehlhausen does provide such a disclosure or suggestion, it is respectfully submitted that Examiner's assumptions do not constitute the disclosure of prior art. *In re Rijckaert*, 28 U.S.P.Q.2d at 1956.


The joining elements and perforations of Applicants' composite structural article are mutually dimensioned to allow reversible frictional movement between the core body and the plastics part along at least one of the x and y direction of the plane of each of the core body and the plastics part. Muehlhausen provides no

disclosure or suggestion as to mutually dimensioning the bores, perforations or set-out tongues of his constructional unit to allow reversible frictional movement between the deep-drawn metal sheet and the plastic injection molded thereon, along the x and/or y direction of the plane of each of the deep-drawn metal sheet and the plastic that is injection molded onto the metal sheet.

In light of the amendments herein and the preceding remarks, Applicants' claims are deemed to be unanticipated by and patentable over Muehlhausen. Reconsideration and withdrawal of this rejection is respectfully requested.

In light of the amendments herein and the preceding remarks, Applicants' presently pending claims are deemed to define an invention that is unanticipated, unobvious and hence, patentable. Reconsideration of the rejections and allowance of all of the presently pending claims is respectfully requested.

Respectfully submitted,

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